

RESPONSE TO RESTRICTION REQUIREMENT

Serial Number: 09/845,896

Filing Date: April 30, 2001

Title: HIGH PERFORMANCE, LOW COST MICROELECTRONIC CIRCUIT PACKAGE WITH INTERPOSER

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2. (Amended) The microelectronic device claimed in claim 1, wherein:

A1
said metallization layer includes a first metallization portion located over said die and a second metallization portion located over said package core.

A2 Sub B3
31. (New) The electrical system of claim 25, further including:

at least one capacitor conductively coupled to an exposed portion of said metallization layer to provide de-coupling for circuitry within said microelectronic die.

32. (New) A microelectronic device comprising:

a die fixed within a package core;

a metallization layer built up upon said die and said package core, wherein said metallization layer includes a first metallization portion located over said die and a second metallization portion located over said package core; and

a grid array interposer unit having a first surface laminated to said metallization layer, said grid array interposer unit having an array of electrical contacts on a second surface thereof for connection to an external circuit board, and wherein said grid array interposer unit has a thickness between said first and second surfaces that is no greater than 0.5 millimeters.

33. (New) The microelectronic device of claim 32, comprising:

at least one de-coupling capacitor connected to said second surface of said grid array interposer unit to provide de-coupling for circuitry within said die.

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34. (New) The microelectronic device of claim 32, wherein:

said grid array interposer unit includes an opening that exposes a first portion of said metallization layer, said microelectronic device further comprising at least one de-coupling capacitor connected to said first portion of said metallization layer to provide de-coupling for circuitry within said die.

35. (New) The microelectronic device of claim 32, wherein:

said metallization layer includes at least one ground pad that is conductively coupled to said metallic cladding on said package core through one or more via connections.

REMARKS

Applicant respectfully asserts that the claims are now in condition for examination. No new matter was added by the presentation of new claims 31-35. Support for new claim 31 comes from claim 28 and throughout the specification. Support for new claim 32 comes from claims 1, 2, 4 and throughout the specification. Support for new claim 33 comes from claims 1-4 and throughout the specification. Support for new claim 34 comes from claims 1, 2, 4, 5 and throughout the specification. Support for new claim 35 comes from claims 1, 2, 4, 10 and throughout the specification.

The Examiner is invited to contact Applicant's Representative John Greaves at 801/278-9171 or the below signed attorney if there are any questions regarding this Response or if prosecution of this application may be assisted thereby.